

eral formats such as professional and consumer newsletters adds to the attraction of this resource. Full-text access to the peer-reviewed journals and professional journal materials in this database, however, will be the real draw for health sciences librarians looking to provide their customers with access to this rapidly growing body of health literature. A search combining the publication types "peer review journals," or "professional journal," or "research paper/report" resulted in 6,577 full text documents as of June 1998—a not insubstantial data set.

Like other search interfaces designed for the non-librarian end user, the AHW interface will disappoint experienced searchers, especially those used to the hierarchical structure and precision of MEDLINE when accessed through Ovid, Dialog, or other sophisticated search engines. AHW searches produce no sets or search histories to reference and "professional level" searches involving complex, nested search strings are not possible. One can, however, use Boolean AND, OR, and NOT combinations of text and numeric strings in both the Words in Articles and Words in Titles dialog boxes. It is important to recognize that this database is marketed to the broadest possible constituency interested in CAM literature, including not only end user clinical practitioners and librarians, but also patients and the interested public.

Librarians might also object to AHW's quarterly update cycle. According to the publisher, the logistics and economics of providing access to full-text content makes more frequent updates unfeasible. Looking to capture maximum revenue stream for their products, most publishers will seldom sacrifice early print sales in favor of immediate electronic availability. More frequent updating however, particularly of the Web version, would enhance the credibility of

AHW with the biomedical library market.

Alt-HealthWatch is a useful tool, precisely because it strives to bring together and present a disparate body of complementary and alternative medicine full text resources. Gingko-takers as well as gingko critics will find the search interface a breeze to maneuver through, and librarians, who can be a demanding lot when it comes to search interfaces, will appreciate the easy access to a myriad of full-text resources that would otherwise be difficult to track down and obtain.

References

1. ANGELL M, KASSIRER JP. Alternative medicine—the risks of untested and unregulated remedies. *N Engl J Med* 1998 Sep 17;339(12):839–41.
2. *IBID.*, 840.

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Essentials of Immunology. Reese, Andy C. and Dolen, William K. 1998. ISBN: 1-885966-71-7. Gold Standard Multimedia Inc., PO Box 18305, Tampa, FL 33679-9817; 800/375-0943; info@gsm.com; www.gsm.com. \$99.00 for an individual license; \$475.00 for an institutional multi-user license for CD-ROM version; Windows or Macintosh. Web access available for subscribers.

Essentials of Immunology is a multimedia educational program directed at both medical students and health professionals. Immunology is a complex subject that is advancing continuously, so alternative approaches to learning and knowledge updates are useful.

The program presents the "essential" information needed to understand the subject rather than attempting to provide comprehen-

sive coverage. It covers the basic mechanisms of host defenses, such as complement, antibody-antigen reactions, and cellular response, and the immunologic processes related to specific diseases and medical conditions, such as cancer, transplantation, and allergy. It is also intended to assist medical students studying for the United States Medical Licensing Exam (USMLE) Step 1. For physicians and nurses, the program can be used to earn 1.8 continuing education units (with an anticipated instructional time of eighteen hours).

Essentials of Immunology's primary arrangement is by chapter and its fifteen chapters comprise the largest segment of the program. Each chapter begins with an outline that includes a brief summary of the chapter's highlights. Links from the outline lead to in-depth explanations within the chapter. Users may choose either to study specific areas of interest or to go through the entire chapter from introduction to summary. Each chapter includes colorful diagrams and animations that help depict the information presented.

The program also includes case history and quiz sections. The case history provides a clinical framework in which to study immunology. After the case presentation, the program provides three general questions to think about as the patient is evaluated for the possibility of an immunodeficiency disease and provides suggestions on taking a history, doing a physical examination, and ordering laboratory tests to work up the case. The case history also includes a list of immunodeficiency diseases adapted from a 1995 World Health Organization report [1]. For most of the diseases, there are concise descriptions that include information on pathogenesis, molecular immunology, clinical features, laboratory findings, management, and selected references. For some diseases, the program links to the chapter in-

formation, rather than providing the concise summary. Unfortunately, the bibliographic references provided date from before 1996. The program does, however, recommend Online Mendelian Inheritance in Man (OMIM at www.ncbi.nlm.nih.gov/omim) as a more up-to-date source of information. The program's index section provides a direct way to access the descriptions of the immunodeficiency diseases. Another feature of interest to those users focusing on clinical manifestations of defects in the immune system is the summary of the chapter on immunodeficiency diseases. It lists sixteen diseases below a diagram of the immune system. By holding the cursor over the name of the disease, the learner can see where the deficiency lies on the diagram and is given a pop-up window that describes the organisms to which the immunodeficient individual is susceptible.

The quiz section includes review quizzes for each chapter as well as an overall quiz that can be used for obtaining continuing education (CE) credits. The review quizzes provide immediate feedback for

each answer of the multiple choice questions with links back to the relevant chapter information. The CE quiz can be taken either via the Web or done on paper and mailed in. As one would expect, feedback is not provided for the CE quiz.

A Web browser and the QuickTime plug-in provide the interface to Essentials of Immunology. Netscape 4.04 and QuickTime 2.1.2 are included on the CD-ROM. The program is available either as a CD-ROM product or online through the Gold Standard Multimedia Web site. Single-user pricing is similar for both formats. The program seems painfully slow over the Internet when using a modem, especially when the QuickTime animations are loading, but also for the program's graphical interface. Response time with a direct Internet connection is acceptable. Internet access has the usual advantages for libraries wanting to provide resources to users in their homes, but the slowness of loading pages may reduce interest in Internet access for those using modems. Navigating the program is straightforward. Each page in the chapter includes the program's major sections (chap-

ter outline, program outline, case history, index, help, and quiz), allowing easy movement within the program. At certain places, however, such as in the index, one must use the browser's Back and Go buttons to return to a section.

Essentials of Immunology is billed not as an interactive learning program, rather as an educational product but it is educational in the same sense that a book might be. The program's chapter arrangement emphasizes its reliance on the book metaphor. Although the case history provides a clinical case context, it is not intended to test the learner's knowledge as a typical case simulation does. Essentials of Immunology provides coverage of a difficult subject with some useful features in an attractive presentation but a more interactive learning program would have been even better.

Reference

1. Primary immunodeficiency diseases. Report of a WHO Scientific Group. Clin Exp Immunol 1995 Jan 99 Suppl 1:1-24.

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